```
    and New Year's Day.                                          *
  *                                                              *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
FILE 'USPAT' ENTERED AT 13:56:10 ON 11 FEB 1999

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  *                                                              *
  *              W E L C O M E   T O   T H E                     *
  *         U. S.   P A T E N T   T E X T   F I L E              *
  *                                                              *
  * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

=> s re-initiation or reinitiation?

        211787 RE
         71772 INITIATION
           194 RE-INITIATION
                 (RE(W)INITIATION)
           440 REINITIATION?
L1         618 RE-INITIATION OR REINITIATION?

=> s l1 and translation

         55536 TRANSLATION
L2          90 L1 AND TRANSLATION

=> s l2 and expression vector?

         82754 EXPRESSION
         75087 VECTOR?
          9528 EXPRESSION VECTOR?
                 (EXPRESSION(W)VECTOR?)
L3          40 L2 AND EXPRESSION VECTOR?

=> s l3 and marker?

         42359 MARKER?
L4          33 L3 AND MARKER?

=> d l4,1-33,cit


1.  5,869,631, Feb. 9, 1999, Variant of LAV viruses; Marc Alizon, et al.,
536/23.1; 435/235.1; 530/324, 350, 395 [IMAGE AVAILABLE]

2.  5,866,784, Feb. 2, 1999, Recombinant plant expressing
non-competitively binding insecticidal crystal proteins; Herman Van
Mellaert, et al., 435/320.1, 419, 430; 536/23.71 [IMAGE AVAILABLE]

3.  5,856,144, Jan. 5, 1999, Direct cloning of DNA fragments; Robert C.
Mierendorf, et al., 435/91.2, 91.4, 320.1 [IMAGE AVAILABLE]

4.  5,854,392, Dec. 29, 1998, .beta. APP-C100 receptor; Susan P. Manly,
et al., 530/350; 435/69.1; 530/327, 395; 536/23.5 [IMAGE AVAILABLE]

5.  5,854,037, Dec. 29, 1998, Recombinant negative strand RNA virus
expression systems and vaccines; Peter Palese, et al., 435/69.1, 91.33,
235.1, 320.1; 530/350; 536/23.72 [IMAGE AVAILABLE]

6.  5,840,520, Nov. 24, 1998, Recombinant negative strand RNA virus
expression systems; David Kirkwood Clarke, et al., 435/69.1; 424/199.1;
```

435/235.1, 320.1; 536/23.1 [IMAGE AVAILABLE]

7. 5,824,482, Oct. 20, 1998, Purification, cloning, and characterization of a novel human immunodeficiency virus LAV.sub.MAL; Marc Alizon, et al., 435/7.1; 424/188.1, 208.1; 435/5, 235.1 [IMAGE AVAILABLE]

8. 5,820,871, Oct. 13, 1998, Recombinant negative strand RNA virus expression systems and vaccines; Peter Palese, et al., 424/209.1, 206.1; 435/320.1 [IMAGE AVAILABLE]

9. 5,798,233, Aug. 25, 1998, Glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them; Emil C. Gotschlich, 435/97, 193 [IMAGE AVAILABLE]

10. 5,786,199, Jul. 28, 1998, Recombinant negative strand RNA virus expression systems and vaccines; Peter Palese, 435/239, 194, 235.1, 320.1, 456, 465; 536/23.1, 23.72 [IMAGE AVAILABLE]

11. 5,773,602, Jun. 30, 1998, DNA fragments obtained from a novel human immunodeficiency virus designated LAV.sub.MAL; Marc Alizon, et al., 536/23.72; 424/188.1; 536/23.1, 24.1 [IMAGE AVAILABLE]

12. 5,747,242, May 5, 1998, Diagnostic kits and methods for detecting antibodies to LAV viruses; Marc Alizon, et al., 435/5, 7.1, 7.9, 7.92, 7.94, 7.95, 974, 975; 436/518, 528, 531, 534; 530/324, 326, 328, 329, 350, 826 [IMAGE AVAILABLE]

13. 5,739,026, Apr. 14, 1998, DNA expression systems based on alphaviruses; Henrik Garoff, et al., 435/352, 320.1, 325; 536/23.72, 24.1 [IMAGE AVAILABLE]

14. 5,738,985, Apr. 14, 1998, Method for selective inactivation of viral replication; Vincent J. Miles, et al., 435/5, 6, 7.1, 254.2 [IMAGE AVAILABLE]

15. 5,733,779, Mar. 31, 1998, Impaired dominant selectable **marker** sequence and intronic insertion strategies for enhancement of expression of gene product and **expression vector** systems comprising same; Mitchell E. Reff, 435/320.1; 536/23.1, 24.1 [IMAGE AVAILABLE]

16. 5,716,834, Feb. 10, 1998, Cloned factor C cDNA of the Singapore horseshoe crab, Carcinoscorpius rotundicauda and purification of factor C proenzyme; Jeak Ling Ding, et al., 435/219, 252.33, 254.11, 320.1; 536/23.2 [IMAGE AVAILABLE]

17. 5,712,144, Jan. 27, 1998, Cloned factor C cDNA of the Singapore Horseshoe Crab, Carcinoscorpius rotundicauda and purification of Factor C proenzyme; Jeak Ling Ding, et al., 435/219; 424/94.63, 94.64, 522; 435/226 [IMAGE AVAILABLE]

18. 5,705,367, Jan. 6, 1998, Glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them; Emil C. Gotschlich, 435/97, 193 [IMAGE AVAILABLE]

19. 5,698,686, Dec. 16, 1997, Yeast telomerase compositions; Daniel E. Gottschling, et al., 536/23.1; 435/6, 91.2; 536/22.1, 24.3, 24.31, 24.33 [IMAGE AVAILABLE]

20. 5,695,954, Dec. 9, 1997, DNA encoding two fish neuropeptides; Nancy Gail McKeown Sherwood, et al., 435/69.1, 69.2, 69.4, 252.3, 320.1, 325, 365.1; 536/23.1, 23.51 [IMAGE AVAILABLE]

21. 5,648,267, Jul. 15, 1997, Impaired dominant selectable **marker** sequence and intronic insertion strategies for enhancement of expression of gene product and **expression vector** systems comprising same;

Mitchell E. Reff, 435/320.1, 252.3, 325, 342, 352, 354, 357, 358, 364, 365, 369 [IMAGE AVAILABLE]

22. 5,578,473, Nov. 26, 1996, Recombinant negative strand RNA virus; Peter Palese, et al., 435/235.1, 236, 320.1 [IMAGE AVAILABLE]

23. 5,545,553, Aug. 13, 1996, Glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them; Emil C. Gotschlich, 435/252.33, 72, 193, 243, 320.1; 536/23.2 [IMAGE AVAILABLE]

24. 5,474,920, Dec. 12, 1995, Modified thermo-resistant DNA polymerases; Robb E. Moses, 435/194, 252.3; 536/23.2 [IMAGE AVAILABLE]

25. 5,436,139, Jul. 25, 1995, Non-passageable virus; William J. Rutter, et al., 435/69.3, 71.1, 252.33, 320.1; 530/350; 536/23.72, 24.1 [IMAGE AVAILABLE]

26. 5,378,806, Jan. 3, 1995, Fusion protein produced by retrovirus-mediated secretion; John W. Willis, 530/350; 435/69.7; 530/412; 536/23.4 [IMAGE AVAILABLE]

27. 5,252,465, Oct. 12, 1993, Avian erythroblastosis virus vectors for integration and expression of heterologous genes in avian cells; Victor-Marc Nigon, et al., 435/69.1, 239, 320.1, 349, 467 [IMAGE AVAILABLE]

28. 5,196,338, Mar. 23, 1993, Recombinant vectors for Haemophilus influenzae peptides and proteins; Algis Anilionis, et al., 435/252.3, 69.1, 69.7, 320.1; 530/350 [IMAGE AVAILABLE]

29. 5,175,099, Dec. 29, 1992, Retrovirus-mediated secretion of recombinant products; John W. Wills, 435/69.7, 252.3, 320.1; 530/350; 536/23.72 [IMAGE AVAILABLE]

30. 5,166,057, Nov. 24, 1992, Recombinant negative strand RNA virus expression-systems; Peter Palese, et al., 435/69.1, 194, 235.1, 320.1, 463 [IMAGE AVAILABLE]

31. 5,098,997, Mar. 24, 1992, Vaccines for Haemophilus influenzae; Algis Anilionis, et al., 530/350; 435/69.3, 69.7, 851; 530/405, 806, 825 [IMAGE AVAILABLE]

32. 5,034,511, Jul. 23, 1991, Variant of LAV viruses; Marc Alizon, et al., 530/326; 435/5, 235.1; 530/324, 350, 395 [IMAGE AVAILABLE]

33. 5,030,714, Jul. 9, 1991, Variant of LAV viruses; Marc Alizon, et al., 530/326; 435/5, 235.1; 530/350, 395 [IMAGE AVAILABLE]

=> d 15,21,clms

US PAT NO: 5,733,779 [IMAGE AVAILABLE] L4: 15 of 33

CLAIMS:

CLMS(1)

What is claimed is:

1. An **expression vector** for expressing a protein of interest by recombinant deoxyribonucleic acid techniques, said vector comprising at least one dominant selectable **marker**, wherein the **translation** initiation start site of said **marker** comprises the following sequence: ##STR28## where "Py" is a pyrimidine nucleotide; "x" is a nucleotide; and the numerical designations are relative to the codon

"ATG".

CLMS(2)

2. The **expression vector** of claim 1 wherein the vector comprises a nucleic add sequence encoding the protein of interest is co-linked to said dominant selectable **marker**.

CLMS(3)

3. The **expression vector** of claim 1 wherein said dominant selectable **marker** is selected from the group consisting of: herpes simplex virus thymidine kinase, adenosine deaminase, asparagine synthetase, Salmonella his D gene, xanthine guanine phosphoribosyl transferase, hygromycin B phosphotransferase, and neomycin phosphotransferase.

CLMS(4)

4. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence is selected from the group consisting of TxxATGCxx; CxxATGCxx; CxxATGTxx; and TxxATGTxx, where "x" is a nucleotide, with the proviso that the codon "Txx" downstream of the ATG codon does not encode a stop codon.

CLMS(5)

5. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence is TxxATGCxx, where "x" is a nucleotide.

CLMS(6)

6. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence is TCCATGCTT.

CLMS(7)

7. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence is located within a secondary structure.

CLMS(8)

8. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence further comprises at least one out-of-frame start codon within about 1000 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 1000 nucleotides.

CLMS(9)

9. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence further comprises at least one out-of-frame start codon within about 350 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 350 nucleotides.

CLMS(10)

10. The **expression vector** of claim 1 wherein said **translation** initiation start site sequence further comprises at least one out-of-frame start codon within about 50 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 50 nucleotides.

CLMS(11)

11. The **expression** [redacted]**tor** of claims 8, 9 or 10 where[redacted] said out-of-frame start co[redacted]n is part of a consensus Kozak [redacted]quence.

CLMS(12)

12. The **expression vector** of claim 10 wherein said out-of-frame start codon and said **translation** initiation start site sequence are both included as part of a secondary structure.

CLMS(13)

13. The **expression vector** of claims 8, 9 or 10 wherein said **translation** initiation start site sequence is part of a secondary structure and said out-of-frame start codon is not part of said secondary structure.

CLMS(14)

14. A dominant selectable **marker** encoded by a nucleic acid sequence, wherein the **translation** initiation start site of said dominant selectable **marker** is selected from the group consisting of TxxATGCxx; CxxATGCxx; CxxATGTxx; and TxxATGTxx, where "x" is a nucleotide, with the proviso that "Txx" downstream of the ATG codon does not encode a stop codon.

CLMS(15)

15. The **marker** of claim 14 wherein said dominant selectable **marker** is selected from the group consisting of herpes simplex virus thymidine kinase, adenosine deaminase, asparagine synthetase, Salmonella his D gene, xanthine guanine phosphoribosyl transferase, hygromycin B phosphotransferase, and neomycin phosphotransferase.

CLMS(16)

16. The **marker** of claim 14 wherein said **translation** initiation start site sequence is TxxATGCxx, where "x" is a nucleotide.

CLMS(17)

17. The **marker** of claim 14 wherein said **translation** initiation start site sequence is TCCATGCTT.

CLMS(18)

18. The **marker** of claim 14 wherein said **translation** initiation start site sequence is located within a secondary structure.

CLMS(19)

19. The **marker** of claim 14 wherein said **translation** initiation start site sequence further comprises at least one out-of-frame start codon within about 1000 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 1000 nucleotides.

CLMS(20)

20. The **marker** of claim 14 wherein said **translation** initiation start site sequence further comprises at least one out-of-frame start codon within about 350 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 350 nucleotides.

CLMS(21)

21. The **marker** of claim 14 wherein said **translation** initiation start site sequence further comprises at least one out-of-frame start codon within about 50 nucleotides of the ATG start codon of said start site, with the proviso that no in-frame stop codon is located within said 50 nucleotides.

CLMS(22)

22. The **marker** of claims 19, 20 and 21 wherein said out-of-frame start codon is part of a consensus Kozak sequence.

CLMS(23)

23. The **marker** of claim 21 wherein said out-of-frame start codon and said **translation** initiation start site sequence are both included as part of a secondary structure.

CLMS(24)

24. The **marker** of claims 19, 20, 21 wherein said **translation** initiation start site sequence is part of a secondary structure and said out-of-frame start codon is not part of said secondary structure.

CLMS(25)

25. An **expression vector** selected from the group consisting of ANEX 1 and ANEX 2.

CLMS(26)

26. A plasmid comprising the **expression vector** of claim 1 wherein the nucleic acid sequence encoding for said protein of interest is co-linked to said dominant selectable **marker**.

CLMS(27)

27. A mammalian host cell containing the plasmid of claim 26 wherein said plasmid is integrated within the cellular deoxyribonucleic acid of said mammalian host cell.

CLMS(28)

28. The mammalian host cell of claim 27 wherein said mammalian host cell is selected from the group consisting of DG44, DXB11, CV1, COS, R1610, SP2/O, P3x633-Ag8.653, BPA-1c1BPT, RAJI, and 293.

CLMS(29)

29. The **expression vector** of claim 1 further comprising an artificial intronic insertion region within said dominant selectable **marker**, wherein an encoding sequence for a protein of interest is located within said insertion region.

CLMS(30)

30. The dominant selectable **marker** of claim 14 further comprising an artificial instronic insertion region.

US PAT NO: 5,648,267 [IMAGE AVAILABLE] L4: 21 of 33

CLAIMS:

CLMS(1)

What is claimed is:

1. An **expression vector** which expresses at least one protein of interest in a recombinant host cell wherein said **expression vector** comprises:
(i) a translationally impaired neomycin phosphotransferase (NEO) dominant selectable **marker** gene which has been translationally impaired by modification of the region of the NEO gene which includes the NEO **translation** initiation start codon such that said modified region of the NEO gene which includes the NEO **translation** initiation start codon has the following nucleotide sequence:

CCA GCA TGG AGG A ATCGAT CC TCC ATG CTT (SEQ ID NO: 17)
which translationally impaired NEO gene is operably linked to a promoter and polyadenylation sequence; and
(ii) at least one heterologous DNA which encodes for at least one protein of interest, wherein said heterologous DNA is operably linked to a promoter and polyadenylation sequence different from the promoter and polydenylation sequence operably linked to the NEO gene, and wherein said heterologous DNA and said promoter and polyadenylation sequence operably linked to said heterologous are inserted into an intronic insertion region contained in the NEO gene.

CLMS(2)

2. The vector of claim 1 which further comprises a second dominant selectable **marker** gene.

CLMS(3)

3. The vector of claim 1 wherein the intronic insertion region is a synthetic intron sequence which is inserted between the CAG which encodes glycine at position 61 and the GAC which encodes aspartic acid at position 62 of the NEO gene.

CLMS(4)

4. The vector of claim 1 wherein the protein of interest is an antibody.

CLMS(5)

5. A recombinant host cell which contains the **expression vector** according to claim 1.

CLMS(6)

6. A recombinant host cell which contains the **expression vector** according to claim 2.

CLMS(7)

7. A recombinant host cell which contains the **expression vector** according to claim 3.

CLMS(8)

8. A recombinant host cell which contains the **expression vector** according to claim 4.

CLMS(9)

9. The recombinant host cell of claim 5 wherein said host cell is a mammalian cell.

CLMS(10)

10. The recombinant host cell of claim 9 wherein said mammalian cell is a Chinese hamster ovary cell.

=> s reinitiation? and expression vector?

```
          440 REINITIATION?
        82754 EXPRESSION
        75087 VECTOR?
         9528 EXPRESSION VECTOR?
                (EXPRESSION(W)VECTOR?)
L5         40 REINITIATION? AND EXPRESSION VECTOR?
```

=> s l5 and translation? reinitiation?

```
        68787 TRANSLATION?
          440 REINITIATION?
            4 TRANSLATION? REINITIATION?
                (TRANSLATION?(W)REINITIATION?)
L6          3 L5 AND TRANSLATION? REINITIATION?
```

=> d l6,1-3,cit,ab

1. 5,856,144, Jan. 5, 1999, Direct cloning of DNA fragments; Robert C. Mierendorf, et al., 435/91.2, 91.4, 320.1 [IMAGE AVAILABLE]

US PAT NO: 5,856,144 [IMAGE AVAILABLE] L6: 1 of 3

ABSTRACT:
A vector for the direct cloning of the products of PCR protocol incorporates single nucleotide overhangs at one or both ends of a linearized DNA segment. The single nucleotide overhangs are uracil or inosine residues, as desired, to facilitate cloning of the desired PCR products.

2. 5,759,852, Jun. 2, 1998, **Expression vector** containing PL6M promoter and TAT32 ribosome binding site and host cells transformed therewith; Richard J. Kirschner, et al., 435/320.1, 252.8; 536/24.1 [IMAGE AVAILABLE]

US PAT NO: 5,759,852 [IMAGE AVAILABLE] L6: 2 of 3

ABSTRACT:
Disclosed are **expression vectors** useful as vectors in recombinant methods to facilitate expression of exogenous genes in E. coli. Specifically, the disclosed **expression vector** has the following elements in operable linkage: the PL6m promoter, the TAT32 ribosome binding site and a gene encoding a heterologous polypeptide, Also disclosed are E. coli host cells transformed with this **expression vector**.

3. 5,510,256, Apr. 23, 1996, Eliminating internal initiation of soluble CD4 gene; Richard J. Kirschner, et al., 435/91.41, 69.1, 70.1, 252.3, 320.1; 536/23.5, 24.1 [IMAGE AVAILABLE]

US PAT NO: 5,510,256 [IMAGE AVAILABLE] L6: 3 of 3

ABSTRACT:
The present invention is based upon the discovery that proteins made from genes that include the CD4 sequence in its cDNA can make additional polypeptides as a result of internal translation initiation. This invention is thus directed to DNA sequences which eliminate internal initiation expression in sCD4.

=> d 2,kwic

US PAT NO: 5,759,852 [IMAGE AVAILABLE] L6: 2 of 3
TITLE: **Expression vector** containing PL6M promoter and TAT32 ribosome binding site and host cells transformed therewith

ABSTRACT:
Disclosed are **expression vectors** useful as vectors in recombinant methods to facilitate expression of exogenous genes in E. coli. Specifically, the disclosed **expression vector** has the following elements in operable linkage: the PL6m promoter, the TAT32 ribosome binding site and a gene encoding a heterologous polypeptide, Also disclosed are E. coli host cells transformed with this **expression vector**.

SUMMARY:

BSUM(10)

The . . . Res. 10:2971-2996; Schneider, T., et al. (1986) "Information Content of Binding Sites on Nucleotide Sequences." J. Mol. Biol. 188:415-431). Additionally, **translation reinitiation** can occur if a translational start signal overlaps (Oppenheim, D., and Yanofsky, C. (1980) "Translational Coupling During the Expression of. . . (Steitz, J. (1979) "Genetic signals and nucleotide sequences in messenger RNA." In "Biological Regulation and Development. 1. Gene Expression.") Such **reinitiation** does not require a Shine-Dalgarno sequence and differs from the intragenic initiation discussed herein.

CLAIMS:

CLMS(1)

We claim:

1. An **expression vector** comprising the following elements in operable linkage: the P.sub.L6m promoter, the TAT32 ribosome binding site and a gene encoding a. . .

CLAIMS:

CLMS(2)

2. The **expression vector** of claim 1 wherein the gene encodes sCD4-PE40.

CLAIMS:

CLMS(3)

3. The **expression vector** of claim 1 which is pUC1456.

CLAIMS:

CLMS(4)

4. An E. coli host cell transformed with the **expression vector** of claim 1.

LIGHT set on as ' '
? begin 5,6,55,154,155,156,312,399,biotech,biosci

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      Set  Items  Description
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? s reinitiation? and translation?

           5265  REINITIATION?
         473331  TRANSLATION?
      S1     913  REINITIATION? AND TRANSLATION?
? s s1 and expression vector?

            913  S1
           4669  EXPRESSION VECTOR?
      S2      0  S1 AND EXPRESSION VECTOR?
? s s1 and vector?

            913  S1
         793456  VECTOR?
      S3     70  S1 AND VECTOR?
? s s3 and expression

             70  S3
        3149954  EXPRESSION
      S4     48  S3 AND EXPRESSION
? rd s4

>>>Duplicate detection is not supported for File 60.

>>>Records from unsupported files will be retained in the RD set.
...completed examining records
      S5     27  RD S4 (unique items)
? d s5/3/1-27

      Display 5/3/1     (Item 1 from file: 5)
DIALOG(R)File   5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

10107346   BIOSIS NO.: 199698562264
Phage RNA polymerase vectors that allow efficient gene
  expression in both prokaryotic and eukaryotic cells.

AUTHOR: He Biao; McAllister William T; Durbin Russell K(a)
AUTHOR ADDRESS: (a)Dep. Microbiol. Immunol., SUNY Health Sci. Center
  Brooklyn, 450 Clarkson Ave., Brooklyn, NY 1120, USA

JOURNAL: Gene (Amsterdam)  164 (1):p75-79 1995
ISSN: 0378-1119
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

                                - end of record -
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      Display 5/3/2     (Item 2 from file: 5)
DIALOG(R)File   5:BIOSIS PREVIEWS(R)
(c) 1999 BIOSIS. All rts. reserv.

08377113   BIOSIS NO.: 000094107617
TRANSLATION OF THE RAT LINE BICISTRONIC RNAS IN-VITRO INVOLVES
```

RIBOSOMAL **REINITIATION** INSTEAD OF FRAMESHIFTING

AUTHOR: ILVES H; KAHRE O; SPEEK M
AUTHOR ADDRESS: DEP. MOLECULAR BIOLOGY, TARTU UNIVERSITY, 2 JAKOBI STREET, TARTU 202400, ESTONIA.

JOURNAL: MOL CELL BIOL 12 (9). 1992. 4242-4248.
FULL JOURNAL NAME: Molecular and Cellular Biology
CODEN: MCEBD
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

- end of record -

?

Display 5/3/3 (Item 3 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

07259200 BIOSIS NO.: 000090039076
TGATG **VECTOR** A NEW **EXPRESSION** SYSTEM FOR CLONED FOREIGN GENES IN ESCHERICHIA-COLI CELLS

AUTHOR: MASHKO S V; VEIKO V P; LAPIDUS A L; LEBEDEVA M I; MOCHULSKY A V; SHECHTER I I; TRUKHAN M E; RATMANOVA K I; REBENTISH B A; ET AL
AUTHOR ADDRESS: INST. GENETICS SELECTION INDUS. MICROORGANISM, 113545, FIRST DOROZHNYJ PR., 1A, MOSCOW, USSR.

JOURNAL: GENE (AMST) 88 (1). 1990. 121-126.
FULL JOURNAL NAME: GENE (Amsterdam)
CODEN: GENED
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

- end of record -

?

Display 5/3/4 (Item 4 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

06584390 BIOSIS NO.: 000087026551
SIGNALS IMPORTANT FOR HIGH-LEVEL **EXPRESSION** OF FOREIGN GENES IN AUTOGRAPHA-CALIFORNICA NUCLEAR POLYHEDROSIS VIRUS **EXPRESSION VECTORS**

AUTHOR: LUCKOW V A; SUMMERS M D
AUTHOR ADDRESS: DEP. ENTOMOL., TEXAS A AND M UNIV., AND TEXAS AGRIC. EXPERIMENT STN., COLL. STN., TEXAS 77843-2475.

JOURNAL: VIROLOGY 167 (1). 1988. 56-71.
FULL JOURNAL NAME: Virology
CODEN: VIRLA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

- end of record -

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Display 5/3/5 (Item 5 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

06562359 BIOSIS NO.: 000087004520
EXPRESSION OF THE BISPHOSPHATASE DOMAIN OF RAT LIVER 6

PHOSPHOFRUCTO-2-KINASE-FRUCTOSE-2 6-BISPHOSPHATASE IN ESCHERICHIA-COLI

AUTHOR: TAULER A; ROSENBERG A H; COLOSIA A; STUDIER F W; PILKIS S J
AUTHOR ADDRESS: DEP. PHYSIOL. BIOPHYS., STATE UNIV. N.Y. STONY BROOK, STONY BROOK, N.Y. 11794.

JOURNAL: PROC NATL ACAD SCI U S A 85 (18). 1988. 6642-6646.
FULL JOURNAL NAME: Proceedings of the National Academy of Sciences of the United States of America
CODEN: PNASA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

- end of record -

?

Display 5/3/6 (Item 6 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

05477189 BIOSIS NO.: 000033078042
EXPRESSION OF HUMAN PANCREATIC POLYPEPTIDE PRECURSORS FROM A DICISTRONIC MESSENGER RNA IN MAMMALIAN CELLS

AUTHOR: BOEL E; BERKNER K L; NEXO B A; SCHWARTZ T W
AUTHOR ADDRESS: NOVO RES. INST., LAB. GENETICS, DK-2880 BAGSVAERD-COPENHAGEN, DEN.

JOURNAL: FEBS (FED EUR BIOCHEM SOC) LETT 219 (1). 1987. 181-188.
FULL JOURNAL NAME: FEBS (Federation of European Biochemical Societies) Letters
CODEN: FEBLA
RECORD TYPE: Citation
LANGUAGE: ENGLISH

- end of record -

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Display 5/3/7 (Item 7 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

05230257 BIOSIS NO.: 000082070879
TERMINATION-**REINITIATION** OCCURS IN THE **TRANSLATION** OF MAMMALIAN CELL MESSENGER RNA

AUTHOR: PEABODY D S; BERG P
AUTHOR ADDRESS: DEP. OF CELL BIOL., CANCER RES. AND TREATMENT CENT., UNIV. OF NM, ALBUQUERQUE, NEW MEXICO 87131.

JOURNAL: MOL CELL BIOL 6 (7). 1986. 2695-2703.
FULL JOURNAL NAME: Molecular and Cellular Biology
CODEN: MCEBD
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

- end of record -

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Display 5/3/8 (Item 1 from file: 154)
DIALOG(R)File 154:MEDLINE(R)

08662373 96332659
mRNA sequences influencing **translation** and the selection of AUG

initiator codons in the yeast Saccharomyces cerevisiae.
Yun DF; Laz TM; Cl[redacted]nts JM; Sherman F
Department of Biochemistry, University of Rochester, School of Medicine and Dentistry, New York 14642, USA.
Mol Microbiol (ENGLAND) Mar 1996, 19 (6) p1225-39, ISSN 0950-382X Journal Code: MOM
Contract/Grant No.: T32 GM07098, GM, NIGMS; R01 GM12702, GM, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE

- end of record -

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Display 5/3/9 (Item 1 from file: 312)
DIALOG(R)File 312:CA SEARCH(R)

111002107 CA: 111(1)2107z JOURNAL
High level expression of nonfused foreign genes with Autographa californica nuclear polyhedrosis virus expression vectors
AUTHOR(S): Luckow, Verne A.; Summers, Max D.
LOCATION: Dep. Entomol., Texas A and M Univ., College Station, TX, 77843-2475, USA
JOURNAL: Virology DATE: 1989 VOLUME: 170 NUMBER: 1 PAGES: 31-9
CODEN: VIRLAX ISSN: 0042-6822 LANGUAGE: English

- end of record -

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Display 5/3/10 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

126234445 CA: 126(18)234445w PATENT
Retroviral expression systems involving translation reinitiation for selectable marker gene expression from desired gene-marker gene mRNA
INVENTOR(AUTHOR): Collins, Mary Katharine Levinge; Weiss, Robin Anthony; Takeuchi, Yasuhiro; Cosset, Francois-Lois
LOCATION: UK,
ASSIGNEE: Cancer Research Campaign Technology Limited; Collins, Mary Katharine Levinge; Weiss, Robin Anthony; Takeuchi, Yasuhiro; Cosset, Francois-Lois
PATENT: PCT International ; WO 9708330 A1 DATE: 19970306
APPLICATION: WO 96GB2061 (19960823) *GB 9517263 (19950823)
PAGES: 76 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12N-015/86A; C12N-005/10B; C12N-015/67B DESIGNATED COUNTRIES: AL; AM; AT; AU; AZ; BB; BG; BR; BY; CA; CH; CN; CU; CZ; DE; DK; EE; ES; FI; GB; GE; HU; IL; IS; JP; KE; KG; KP; KR; KZ; LK; LR; LS; LT; LU; LV; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; TJ; TM; TR; TT; UA; UG; US; UZ; VN; AM;

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Display 5/3/10 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: KE; LS; MW; SD; SZ; UG ; AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM

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Display 5/3/11 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

06077431 Genuine Article#: XT844 No. References: 2
Title: Requirement of a limited segment of the sog gene for plasmid R64 conjugation
Author(s): Narahara K (REPRINT) ; Rahman E; Furuya N; Komano T
Corporate Source: TOKYO METROPOLITAN UNIV,DEPT BIOL/HACHIOJI/TOKYO 19203/JAPAN/ (REPRINT)
Journal: PLASMID, 1997, V38, N1, P1-11
ISSN: 0147-619X Publication date: 19970000
Publisher: ACADEMIC PRESS INC JNL-COMP SUBSCRIPTIONS, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

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Display 5/3/12 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

05967435 Genuine Article#: XL098 No. References: 18
Title: Purification of active Escherichia coli ribosome recycling factor (RRF) from an osmo-regulated **expression** system
Author(s): MacDougall J; HolstHansen P; Mortensen KK; Freistroffer DV; Pavlov MY; Ehrenberg M; Buckingham RH (REPRINT)
Corporate Source: INST BIOL PHYS CHIM,CNRS, UPR 9073, 13 RUE PIERRE & MARIE CURIE/F-75005 PARIS//FRANCE/ (REPRINT); INST BIOL PHYS CHIM,CNRS, UPR 9073/F-75005 PARIS//FRANCE/; AARHUS UNIV,DEPT CHEM/DK-8000 AARHUS C//DENMARK/; UPPSALA UNIV,DEPT MOL BIOL, BMC/S-75124 UPPSALA//SWEDEN/
Journal: BIOCHIMIE, 1997, V79, N5 (MAY), P243-246
ISSN: 0300-9084 Publication date: 19970500
Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER, 141 RUE JAVEL, 75747 PARIS CEDEX 15, FRANCE
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

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Display 5/3/13 (Item 3 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04459737 Genuine Article#: TE366 No. References: 43
Title: HIGH-TITER PACKAGING CELLS PRODUCING RECOMBINANT RETROVIRUSES RESISTANT TO HUMAN SERUM
Author(s): COSSET FL; TAKEUCHI Y; BATTINI JL; WEISS RA; COLLINS MKL
Corporate Source: INST CANC RES,CHESTER BEATTY LABS,237 FULHAM RD/LONDON SW3 6JB//ENGLAND/; INST CANC RES,CHESTER BEATTY LABS/LONDON SW3 6JB//ENGLAND/; UNIV LYON 1,CNRS,UMR 106,CTR GENET MOLEC & CELLULAIRE/F-69622 VILLEURBANNE//FRANCE/; INST PASTEUR,RETROVIRUS & TRANSFER GENET LAB,CNRS,URA 1157/F-75724 PARIS 15//FRANCE/
Journal: JOURNAL OF VIROLOGY, 1995, V69, N12 (DEC), P7430-7436
ISSN: 0022-538X
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/14 (Item 4 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

04402097 Genuine Article#: TA617 No. References: 52
Title: MODULATION OF TRNA(I)(MET), EIF-2, AND EIF-2B **EXPRESSION** SHOWS

THAT GCN4 **TRANSLATION** IS INVERSELY COUPLED TO THE LEVEL OF EIF-2-CENTER-DOT-GTP-CENTER-DOT-MET-TRNA(I)(MET) TERNARY COMPLEXES
Author(s): DEVER TE; WANG WM; ASTROM S; BYSTROM AS; HINNEBUSCH AG
Corporate Source: NICHHD,MOLEC GENET LAB,MOLEC GENET LOWER EUKARYOTES SECT/BETHESDA//MD/20892; NICHHD,MOLEC GENET LAB,MOLEC GENET LOWER EUKARYOTES SECT/BETHESDA//MD/20892; UMEA UNIV,DEPT MICROBIOL/S-90187 UMEA//SWEDEN/
Journal: MOLECULAR AND CELLULAR BIOLOGY, 1995, V15, N11 (NOV), P6351-6363
ISSN: 0270-7306
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/15 (Item 5 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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04177508 Genuine Article#: RM081 No. References: 53
Title: GCD10, A **TRANSLATIONAL** REPRESSOR OF GCN4, IS THE RNA-BINDING SUBUNIT OF EUKARYOTIC **TRANSLATION** INITIATION FACTOR-III
Author(s): GARCIABARRIO MT; NARANDA T; DEALDANA CRV; CUESTA R; HINNEBUSCH AG; HERSHEY JWB; TAMAME M
Corporate Source: UNIV SALAMANCA,FAC BIOL,INST MICROBIOL BIOQUIM,CONSEJO SUPER INVEST CIENTIF/E-37008 SALAMANCA//SPAIN/; UNIV SALAMANCA,FAC BIOL,INST MICROBIOL BIOQUIM,CONSEJO SUPER INVEST CIENTIF/E-37008 SALAMANCA//SPAIN/; NICHHD,MOLEC GENET LOWER EUKARYOTES SECT,GENET MOLEC LAB/BETHESDA//MD/20892; UNIV CALIF DAVIS,SCH MED,DEPT BIOL CHEM/DAVIS//CA/95616
Journal: GENES & DEVELOPMENT, 1995, V9, N14 (JUL 15), P1781-1796
ISSN: 0890-9369
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/16 (Item 6 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

01896750 Genuine Article#: JJ828 No. References: 34
Title: DYSTROPHIN IN FRAMESHIFT DELETION PATIENTS WITH BECKER MUSCULAR-DYSTROPHY
Author(s): GANGOPADHYAY SB; SHERRATT TG; HECKMATT JZ; DUBOWITZ V; MILLER G; SHOKEIR M; RAY PN; STRONG PN; WORTON RG
Corporate Source: HOSP SICK CHILDREN,DEPT GENET,555 UNIV AVE/TORONTO M5G 1X8/ONTARIO/CANADA/; HOSP SICK CHILDREN,DEPT GENET,555 UNIV AVE/TORONTO M5G 1X8/ONTARIO/CANADA/; UNIV SASKATCHEWAN HOSP,DEPT PEDIAT,DIV MED GENET/SASKATOON S7N 0W8/SASKATCHEWAN/CANADA/; HOSP SICK CHILDREN,RES INST/TORONTO M5G 1X8/ONTARIO/CANADA/; UNIV TORONTO,DEPT MOLEC & MED GENET/TORONTO M5S1A1/ONTARIO/CANADA/; HAMMERSMITH HOSP,ROYAL POSTGRAD MED SCH,JERRY LEWIS MUSCLE RES CTR,DEPT PEDIAT & NEONATAL MED/LONDON W12 0HS//ENGLAND/; UNIV HOSP HERSHEY,PENN STATE COLL MED,DEPT PEDIAT,DIV NEUROL/HERSHEY//PA/00000
Journal: AMERICAN JOURNAL OF HUMAN GENETICS, 1992, V51, N3 (SEP), P562-570
ISSN: 0002-9297

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DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/17 (Item 7 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

01789556 Genuine Article#: JB278 No. References: 45
Title: REPLICATION CONTROL OF PLASMID-R1 - REPA SYNTHESIS IS REGULATED BY COPA RNA THROUGH INHIBITION OF LEADER PEPTIDE **TRANSLATION**
Author(s): BLOMBERG P; NORDSTROM K; WAGNER EGH
Corporate Source: UNIV UPPSALA,CTR BIOMED,DEPT MICROBIOL,BOX 581/S-75123 UPPSALA//SWEDEN/
Journal: EMBO JOURNAL, 1992, V11, N7 (JUL), P2675-2683
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/18 (Item 8 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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01658412 Genuine Article#: HP817 No. References: 49
Title: THE FULL-LENGTH TRANSCRIPT OF A CAULIMOVIRUS IS A POLYCISTRONIC MESSENGER-RNA WHOSE GENES ARE TRANS ACTIVATED BY THE PRODUCT OF GENE-VI
Author(s): SCHOLTHOF HB; GOWDA S; WU FC; SHEPHERD RJ
Corporate Source: UNIV KENTUCKY,DEPT PLANT PATHOL/LEXINGTON//KY/40546; UNIV KENTUCKY,DEPT PLANT PATHOL/LEXINGTON//KY/40546
Journal: JOURNAL OF VIROLOGY, 1992, V66, N5 (MAY), P3131-3139
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/19 (Item 9 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

01203932 Genuine Article#: GD893 No. References: 26
Title: IMPROVED **VECTORS** FOR STABLE **EXPRESSION** OF FOREIGN GENES IN MAMMALIAN-CELLS BY USE OF THE UNTRANSLATED LEADER SEQUENCE FROM EMC VIRUS
Author(s): KAUFMAN RJ; DAVIES MV; WASLEY LC; MICHNICK D
Corporate Source: GENET INST,87 CAMBRIDGE PK DR/CAMBRIDGE//MA/02140
Journal: NUCLEIC ACIDS RESEARCH, 1991, V19, N16, P4485-4490
Language: ENGLISH Document Type: ARTICLE (Abstract Available)

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Display 5/3/20 (Item 10 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

00351675 Genuine Article#: DK854 No. References: 49
Title: SCANNING MODEL FOR **TRANSLATIONAL REINITIATION** IN EUBACTERIA
Author(s): ADHIN MR; VANDUIN J
Corporate Source: LEIDEN STATE UNIV,GORLAEUS LABS,DEPT BIOCHEM,POB 9502/2300 RA LEIDEN//NETHERLANDS/; LEIDEN STATE UNIV,GORLAEUS LABS,DEPT BIOCHEM,POB 9502/2300 RA LEIDEN//NETHERLANDS/
Journal: JOURNAL OF MOLECULAR BIOLOGY, 1990, V213, N4, P811-818
Language: ENGLISH Document Type: ARTICLE

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Display 5/3/21 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0210442 DBA Accession No.: 97-05563 PATENT
Retro virus packaging cell line and **expression** constructs, comprising selectable marker gene downstream of gene of interest - retro virus **vector** and packaging cell culture for use in gene therapy
AUTHOR: Collins M K L; Weiss R A; Takeuchi Y; Cosset F L
CORPORATE SOURCE: London, UK.
PATENT ASSIGNEE: Cancer-Res.Campaign-Technol. 1997
PATENT NUMBER: WO 9708330 PATENT DATE: 970306 WPI ACCESSION NO.: 97-179287 (9716)
PRIORITY APPLIC. NO.: GB 9517263 APPLIC. DATE: 950823
NATIONAL APPLIC. NO.: WO 96GB2061 APPLIC. DATE: 960823
LANGUAGE: English

- end of record -

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Display 5/3/22 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0152830 DBA Accession No.: 93-10882
Efficient **expression** of human interleukin-1-alpha gene in Escherichia coli under the control of a T7 RNA-polymerase-derived system - gene cloning using TGATG overlappon **vector** plasmid pET-TGATG-hIL-1-alpha
AUTHOR: Lebedeva M I; Tsyba N A; Kotenko S V; Epishin S M; Lomakin I B; Vinetski Y P
CORPORATE SOURCE: Institute for Genetics and Selection of Industrial Microorganisms, Moscow, 113545, Russia.
JOURNAL: Biotekhnologiya (4, 18-25) 1993
CODEN: BTKNEZ
LANGUAGE: English

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Display 5/3/23 (Item 3 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0082929 DBA Accession No.: 89-00920
Vectors for in vitro synthesis of poly(A)+RNA transcripts - maize zein seed storage protein gene cloning and **expression**; microinjection in Xenopus laevis oocyte; **vector** construction
AUTHOR: Hoffman L M; Donaldson D D
CORPORATE AFFILIATE: Agrigenetics
CORPORATE SOURCE: Agrigenetics Advanced Science Co., 5649 E. Buckeye Road, Madison, WI 53716, USA.
JOURNAL: Gene (67, 1, 137-40) 1988
CODEN: GENED6
LANGUAGE: English

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Display 5/3/24 (Item 1 from file: 370)
DIALOG(R)File 370:Science

00506457 (USE 9 [redacted] FULLTEXT)
Promotion of Met-tRNA.inf(i).sup(Met) Binding to Ribosomes by yIF2, a Bacterial IF2 Homolog in Yeast
Choi, Sang Ki; Lee, Joon H.; Zoll, Wendy L.; Merrick, William C.; Dever, Thomas E.
S. K. Choi, J. H. Lee, T. E. Dever, Laboratory of Eukaryotic Gene Regulation, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD 20892-2716, USA. ; W. L. Zoll and W. C. Merrick, Department of Biochemistry, Case Western Reserve University, Cleveland, OH 44106, USA.
Science Vol. 280 5370 pp. 1757
Publication Date: 6-12-1998 (980612) Publication Year: 1998
Document Type: Journal ISSN: 0036-8075
Language: English
Section Heading: Reports
Word Count: 2691

- end of record -

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Display 5/3/25 (Item 1 from file: 434)
DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

09614710 Genuine Article#: AG839 No. References: 32
Title: **TRANSLATIONAL REINITIATION** IN THE PRESENCE AND ABSENCE OF A SHINE AND DALGARNO SEQUENCE
Author(s): SPANJAARD RA; VANDUIN J
Corporate Source: UNIV LEIDEN,GORLAEUS LABS,DEPT BIOCHEM,EINSTEINWEG 5/2333 CC LEIDEN//NETHERLANDS/; UNIV LEIDEN,GORLAEUS LABS,DEPT BIOCHEM,EINSTEINWEG 5/2333 CC LEIDEN//NETHERLANDS/
Journal: NUCLEIC ACIDS RESEARCH, 1989, V17, N14, P5501-5507
Language: ENGLISH Document Type: ARTICLE

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Display 5/3/26 (Item 2 from file: 434)
DIALOG(R)File 434:SciSearch(R) Cited Ref Sci

07372689 Genuine Article#: C9356 No. References: 58
Title: TERMINATION-**REINITIATION** OCCURS IN THE **TRANSLATION** OF MAMMALIAN-CELL MESSENGER-RNAS
Author(s): PEABODY DS; BERG P
Corporate Source: STANFORD UNIV,MED CTR,DEPT BIOCHEM/STANFORD//CA/94305
Journal: MOLECULAR AND CELLULAR BIOLOGY, 1986, V6, N7, P2695-2703
Language: ENGLISH Document Type: ARTICLE

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Display 5/3/27 (Item 1 from file: 35)
DIALOG(R)File 35:Dissertation Abstracts Online

896061 ORDER NO: AAD85-21216
GENETIC BARRIERS TO THE HETEROLOGOUS GENE **EXPRESSION** IN BACILLUS SUBTILIS (CAT)
Author: LIN, CHIH-KAI J.
Degree: PH.D.
Year: 1985
Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, DAVIS (0029)
Source: VOLUME 46/08-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

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Display 5/9/4 (Item 4 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

06584390 BIOSIS NO.: 000087026551
SIGNALS IMPORTANT FOR HIGH-LEVEL **EXPRESSION** OF FOREIGN GENES IN AUTOGRAPHA-CALIFORNICA NUCLEAR POLYHEDROSIS VIRUS **EXPRESSION VECTORS**

AUTHOR: LUCKOW V A; SUMMERS M D
AUTHOR ADDRESS: DEP. ENTOMOL., TEXAS A AND M UNIV., AND TEXAS AGRIC. EXPERIMENT STN., COLL. STN., TEXAS 77843-2475.

JOURNAL: VIROLOGY 167 (1). 1988. 56-71.
FULL JOURNAL NAME: Virology
CODEN: VIRLA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The transcriptional and **translational** signals required for

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Display 5/9/4 (Item 4 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

efficient **expression** of the chloramphenicol acetyltransferase, .beta.-galactosidase, and tissue plasminogen activator genes, under the control of the polyhedrin promoter in Spodoptera frugiperda cells infected with Autographa californica nuclear polyhedrosis virus, were investigated by SDS-PAGE and RNA dot blot analysis. The recombinant baculoviruses all contained alterations in the leader sequence or 5' proximal coding region of the polyhedrin gene. Highest levels of foreign proteins and polyhedrin-linked mRNA were observed when portions of the coding sequence of the polyhedrin gene were fused in phase with the foreign gene. Recombinant viruses in which the foreign gene was inserted upstream from the polyhedrin ATG start codon expressed nonfused products but at lower levels than constructs which produced fusion proteins. A corresponding decrease in the levels of mRNAs produced by such constructs was also observed. Some constructs in which the foreign gene was inserted out of phase downstream from the polyhedrin start codon expressed nonfused protein products at low levels but produced polyhedrin-linked mRNA at levels comparable to **vectors** which produced protein

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Display 5/9/4 (Item 4 from file: 5)
DIALOG(R)File 5:BIOSIS PREVIEWS(R)

fusions. These data suggest that **reinitiation** of **translation** can take place at AUG start codons a short distance downstream from the primary polyhedrin start codon. These results indicate that sequences immediately upstream from the polyhedrin start codon are important for regulation of transcription and that additional sequences near the AUG start codon can have a dramatic influence on the levels of

translation observed.

DESCRIPTORS: SPODOPTERA-FRUGIPERDA CELLS CHLORAMPHENICOL ACETYLTRANSFERASE GENE BETA GALACTOSIDASE GENE TISSUE PLASMINOGEN ACTIVATOR GENE TRANSCRIPTION **TRANSLATION** POLYHEDRIN GENE REGIONS

CONCEPT CODES:

03502	Genetics and Cytogenetics-General
03506	Genetics and Cytogenetics-Animal
10062	Biochemical Studies-Nucleic Acids, Purines and Pyrimidines
10300	Replication, Transcription, Translation
10506	Biophysics-Molecular Properties and Macromolecules

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